



Theresa Ely

08/28/2004 11:09 AM
MDT

To: Craig Dalby/Seattle/NPS@NPS, Crista Carroll/Atlanta/NPS@NPS,
David Best/REDW/NPS@NPS, David Duran/DENVER/NPS@NPS,
Dean Tucker/FTCOLLINS/NPS@NPS, Ed Delaney/NIFC/NPS@NPS,
cc: joel.schmidt@ci.denver.co.us, Tim Smith/DENVER/NPS@NPS
Subject: Fw: Pass on to others: "A Field-Rugged PDA For Less"

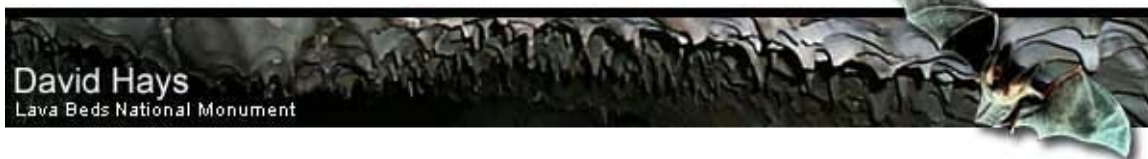
here's an update on how to make your own ruggedized case for a HP iPAq for ArcPad based GPS data collection compliments of David Hays at Lava Beds. Please refer any questions directly to David, it looks like he clearly addresses how to make this work.

----- Forwarded by Theresa Ely/DENVER/NPS on 08/28/2004 11:03 AM -----

David Hays

08/20/2004 03:34 PM
PDT

To: Craig Dalby/Seattle/NPS@NPS, Theresa Ely/DENVER/NPS@NPS
cc:
Subject: Pass on to others: "A Field-Rugged PDA For Less" 📧



Craig & Theresa, please pass this on...

In the spirit of collaboration, I thought I'd pass on something I've found has worked out quite well. We at Lava Beds recently updated our GPS fleet with a pair of [HP iPAq H4350s](#) to run ArcPad. What I've discovered, to my great satisfaction, is that the Otter 2000 case from [OtterBox.com](#), a mere \$10 from their "bargain bin", fits the iPAq perfectly. What's more, if you purchase the clear-fronted case, you can still view the iPAq display while protecting it from the elements.



As of this moment, pricing for the iPAq H4350 was around \$390. I also purchased a second battery for \$88, and a 128 MB SD card for GIS data, another \$28. A nice feature of the H4350 is that there is room to charge the second battery in the iPAq cradle while the iPAq itself is in charging as well.

All of these items can be found at [CompuPlus.com](#), where I purchased mine. Their prices are some of

the best I could find. Add your \$10 for the Otter case, and you get a roughly \$525 field-rugged PDA!

Now, the caveats: You also need a Bluetooth-enabled GPS, like the WAAS-enabled [Navman 4410](#), which I'm using with these iPaqs to great success. They strap to your backpack or stick to your hardhat. Unlike many older Bluetooth models, these run for up to 30 hours of field use (claimed). They do seem to have more than enough power for two or three days of work without a new set of batteries. These GPS units are \$230, also available at [CompuPlus.Com](#). And I highly recommend using the [Find GPS](#) Arcpad extension, it found the Bluetooth GPS signal in a snap.

Also, there is a little more engineering to be done on the iPaq & case to make them ready for use. You have to attach the back of the iPaq to the case (I'm using a pair of adhesive-backed velcro strips), and I'm also adding some foam padding to the part of the case above the keyboard, and a small amount at the top as well, to further secure the iPaq when the case is closed without obscuring the screen from view. I have to create a place for the stylus as well. I don't anticipate any heat issues if the unit is kept in the shade when not in use, though time will tell, it's too late in the season to test this equipment in our most extreme summer conditions.

I'm sure a "real" rugged PDA is better to have - if you have the budget, something like a [TDS Recon 400](#) might be a bit better in some respects (though my setup is probably better in the rain, has built-in Bluetooth & WiFi, and still has a spare memory card slot). What's amazing is you will spend at least \$1300 more for the Recon unit!

If anyone has comments / suggestions, I'd love to hear them. Just thought I'd take the time on a Friday to share.

"Sharing is Caring!"

Dave

Resource Specialist / GIS / IT
1 Indian Well Headquarters, Tulelake CA 96134
530-667-8107

